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Meg S. Austin

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University Corporation for Atmospheric Research Visiting Scientist Programs P.O. Box 3000 Boulder, CO 80307-3000	NA

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13. ABSTRACT *(Maximum 200 words)*

Under sponsorship of the National Science Foundation's Divisions of Ocean Sciences and Polar Programs and the Office of Naval Research's Ocean Science Directorate, UCAR and the ocean sciences community offered a postdoctoral program whose purpose was to help create the next generation of broadly trained ocean modelers. The program was initiated in 1989 and a total of 29 fellowships were awarded. The fellows have been associated with experienced, established scientists in oceanography, and have worked together with them on jointly selected modeling projects. The program has stressed training as well as research. The program's Steering Committee and UCAR feel that the overall program has been highly successful in supporting high quality fellows and in providing them with valuable research experiences in ocean modeling. A need continues to exist for skilled researchers who can intelligently utilize computational capabilities to improve knowledge of ocean dynamics. The training and development of scientists with the capability to formulate and execute modeling studies that contribute to an increase in the basic understanding of oceanographic processes should remain a priority of the ocean sciences community. This program provided unique and advantageous opportunities for postdoctoral research for both fellows and host scientists.

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Under sponsorship of the National Science Foundation's (NSF) Divisions of Ocean Sciences and Polar Programs and the Office of Naval Research's (ONR) Ocean Science Directorate, the University Corporation for Atmospheric Research (UCAR) and the ocean sciences community offered a postdoctoral program whose purpose was to help create the next generation of broadly trained ocean modelers. The program was initiated in 1989 and a total of 29 postdoctoral fellowships were awarded during the life of the program. The postdoctoral fellows have been associated with experienced, established scientists in oceanography, and have worked together with them on jointly selected modeling projects. The program has stressed training as well as research.

Modeling is recognized by the oceanographic community as a key to understanding ocean circulation, the exchange and feedback between the ocean and the atmosphere, including ice covered regions, interactions along the coastal/shelf boundaries, the biological and chemical features of the ocean, and their linkage through the complete spectrum of time and space scales within an entire global system. One strategy of this program has been to approach these problems by pairing scientists of diverse backgrounds. The sponsors and the steering committee have been particularly interested in making appointments to:

- fluid dynamicists, applied mathematicians, physicists, and meteorologists as well as biological, chemical, and physical oceanographers who wish to pursue dynamical modeling of the ocean.

- physical ocean modelers who wish to pursue models that incorporate the chemistry and biology of the oceans.

- scientists interested in developing fully interactive ocean-atmosphere models.

The UCAR program offered visiting research appointments of one year, renewable for a second year. A steering committee selected the fellows and their host institutions. Research appointments were made to various universities, government laboratories and the National Center for Atmospheric Research. UCAR strongly encouraged applications from women and minorities.

- Prospective postdoctoral fellows applied by sending a
  - resume
  - two-page statement of experience
  - two-page statement of research interests
  - the names and addresses of four professional references (one must have been from the applicant's thesis advisor)

The Steering Committee and UCAR feel that the overall program has been highly successful in supporting high quality fellows and in providing them with valuable research experiences in ocean modeling. A need continues to exist for skilled researchers who can intelligently utilize computational capabilities to improve knowledge of ocean dynamics. The training and development of scientists with the capability to formulate and execute modeling studies that contribute to an increase in the basic understanding of oceanographic processes should remain a priority of the ocean sciences community. This program provided unique and advantageous opportunities for postdoctoral research for both fellows and host scientists.

ONR Grant N00014-95-1-1269, provided partial support for the final two classes of postdoctoral fellows (see Attachment A). The program's final search and selection process occurred in 1995 and the last appointment of the program ends on October 15, 1997.

The partnership between UCAR, ONR and NSF produced a very successful postdoctoral fellowship program, and we are pleased to have had the opportunity to work with ONR in support of this endeavor.

Postdoctoral Program In Ocean Modeling

Name	Dates of Appointment	Research Topic	Host Name & Institution	Ph.D. Year, Subject Area, Institution & Faculty Advisor	Current Position
Alistair Adcroft	7/17/95 - 7/16/97	Developing numerical methods to improve use of ocean models in climate studies.	David Neelin Math Sciences Building University of California, Los Angeles	1995, Oceanography Imperial College London, UK John Marshall. MIT	Still in Postdoctoral Program
Andrew Bush	1/16/95 - 1/15/97	Air-sea interaction using a coupled global climate model.	George Philander Program in Atmospheric & Ocean Sciences Princeton University	1994, Physics University of Toronto W.R. Peltier	Faculty position University of Alberta Edmonton, Alberta, Canada
Diego del-Castillo	10/19/94 - 10/18/96	Transport mixing of Potential Vorticity (PV) and passive tracers in geophysical flows.	William Young Scripps Institution of Oceanography University of California, San Diego	1994, Physics University of Texas, Austin P.J. Morrison	Permanent Research Associate position at Scripps Institute of Oceanography
Robert Hallberg	10/16/95 - 10/15/97	Improving the representation of the ocean's physics in the coupled models used in climate simulation to improve our understanding of the ocean circulation.	Robert Toggweiler NOAA/GFDL Ocean Group Princeton University	1995, Oceanography University of Washington Peter Rhines	Still in Postdoctoral Program
Scott Springer	6/13/94 - 6/12/96	Implementation of a new isopycnal-coordinate ocean general circulation model.	Ronald de Szoeke College of Oceanic & Atmospheric Sciences Oregon State University	1994, Physical Oceanography University of Washington M. Kawase	Post-doctoral Researcher Oregon State University
Andrew Stamp	5/25/94 - 5/24/96	Conduct observationally motivated experimental and numerical modeling aimed at improving the parameterization of small-scale mixing in large-scale ocean circulation models.	Peter Rhines School of Oceanography University of Washington	1993, Geophysical Fluid Dymanics The Australian National University R.W. Griffiths	Applied Mathematician McKinsey & Co. Sydney, Australia
Patricia Yager	3/1/96 - 1/3/97	Air-sea carbon flux and the role of high-latitude marine ecosystems.	Richard Wiegert Department of Marine Programs University of Georgia	1996, Oceanography University of Washington Jody Deming	Assistant Professor Department of Oceanography Florida State University

UCAR

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Visiting Scientist
Programs

April 2, 1997

Dr. Steven R. Ramp
Program Officer, Code 322 PO
Office of Naval Research
800 North Quincy Street
Arlington, VA   22217

Dear Steve:

UCAR is pleased to forward to you the Final Technical /Performance
Report for Grant No. N00014-95-1-1269 for the UCAR Postdoctoral
Program in Ocean Modeling.

The partnership between UCAR, ONR and NSF has produced a very
successful postdoctoral fellowship program, and we are pleased to have
had the opportunity to work with you in support of this endeavor.

If you have questions regarding the enclosed report, please contact me at
303-497-8630.

Sincerely yours,

Meg Austin
Director
UCAR Visiting Scientist Programs

cc: R. Lambert
        File

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